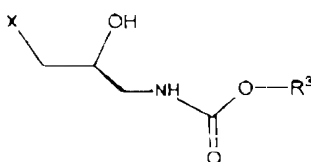


AMENDMENTS

This listing of the claims will replace all prior versions, and listings, of claims in the application.

Listing of the Claims:

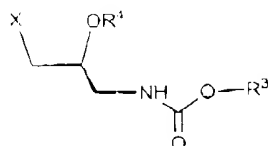
1. (Original) A (S)-secondary alcohol having a general structural formula



wherein R³ is C₁-C₁₀ alkyl, and X is halogen, alkylsulfonyl, or arylsulfonyl, or a salt or hydrate thereof.

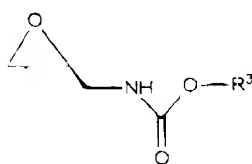
2. (Original) The (S)-secondary alcohol of claim 1 wherein R³ is C₄-C₇ tertiary alkyl.
3. (Original) The (S)-secondary alcohol of claim 2 wherein R³ is tertiary butyl.
4. (Original) The (S)-secondary alcohol of claim 1 wherein X is Cl.
5. (Original) The (S)-secondary alcohol of claim 1 having a name tert-butyl (2S)-3-chloro-2-hydroxypropylcarbamate.
6. (Original) The (S)-secondary alcohol of claim 1 in crystalline form.

7. (Original) An (S)-ester having a general structural formula:



wherein R³ is C₁-C₁₀ alkyl, R⁴ is C₁-C₅ alkylcarbonyl, and X is halogen, alkylsulfonyl, or arylsulfonyl, or a salt or hydrate thereof.

8. (Original) The (S)-ester of claim 7 where R³ is C₄-C₇ tertiary alkyl.
9. (Original) The (S)-ester of claim 8 where R³ is tertiary butyl.
10. (Original) The (S)-ester of claim 7 where X is Cl.
11. (Original) The (S)-ester of claim 7 having a name (1S)-2-[(tert-butoxycarbonyl)amino]-1-(chloromethyl)ethyl acetate.
12. (Original) The (S)-ester of claim 7 in crystalline form.
13. (Original) An (S)-epoxide having a general structural formula:



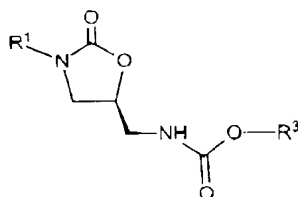
wherein R³ is C₁-C₁₀ alkyl, or a salt or hydrate thereof, in crystalline form.

14. (Original) The (S)-epoxide of claim 13 wherein R³ is C₄-C₇ tertiary alkyl

15. (Original) The (S)-epoxide of claim 14 wherein R^1 is tertiary butyl.

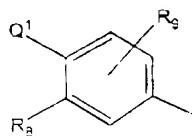
16. (Original) The (S)-epoxide of claim 13 having a name tert-butyl (2S)-oxiranylmethylcarbamate.

17. (Previously amended) An (S)-intermediate having a general structural formula:

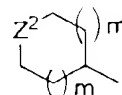
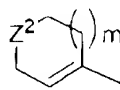
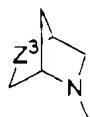
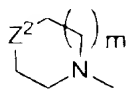
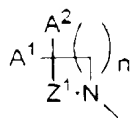


wherein R^1 is an substituted aryl group and R^3 is C_1 - C_{10} alkyl, or a salt or hydrate thereof, provided that when R^3 is C_1 - C_4 alkyl or C_7 - C_{11} araalkyl and R^1 is phenyl, the substituents on R^1 are not hydrogen, monofluoro, monochloro, monobromo, or mononitro substituent, alone or in combination with a 4-methylsulfonyl, 4-methylthio, 4-methylsulfinyl, 4-sulfamyl, 4-isopropyl, 4-(C_1 - C_3 alkyl)carbonyl, 4-ethyl, 4-(1-hydroxyethyl), or 4-acetyloxyacetyl substituent.

18. (Original) The (S)-intermediate of claim 17 wherein R^1 is:



wherein Q^1 is: $R^{10}R^{11}N$,



or Q and R⁵ taken together are dihydropyrrolidine, optionally substituted with R¹²;

Z¹ is CH₂(CH₂)_p, CH(OH)(CH₂)_p, or C(O);

Z² is (O)_pS, O, or N(R¹³);

Z³ is (O)_iS or O;

A¹ is H or CH₃;

A² is selected from the group consisting of:

- a) H,
- b) HO,
- c) CH₃,
- d) CH₃O,
- e) R¹⁴OCH₂=C(O)NH,
- f) R¹⁵OC(O)NH,
- g) (C₁-C₃)alkoxycarbonyl,
- h) HOCH₂,
- i) CH₃ONH,
- j) CH₃C(O),
- k) CH₃C(O)CH₂,
- l) CH₃C(OCH₂CH₂O), and
- m) CH₃C(OCH₂CH₂O)CH₂,

or A¹-C-A² taken together are CH₃-C(OCH₂CH₂O), C(O), or C(=NR²²);

R⁸ is H or F, or is taken together with Q¹ as above;

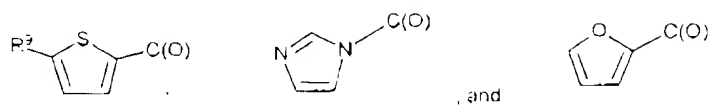
R⁹ is H or F;

R¹⁰ and R¹¹ are taken together with the N atom to form a 3,7-diazabicyclo[3.3.0]octane, pyrrole, pyrazole, imidazole, 1,2,3-triazole, 1,2,4-triazole, morpholine or a piperazine group, optionally substituted with R¹³;

R¹² is selected from the group consisting of:

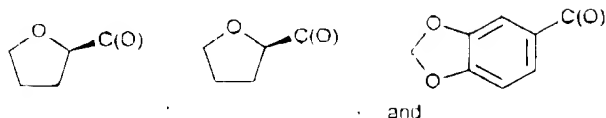
- a) CH₃C(O)-,
- b) HC(O)-,
- c) Cl₂CHC(O)-,
- d) HOCH₂C(O)-,
- e) CH₃SO₂-,
- f) F₂CHC(O)-,
- g) H₃CC(O)OCH₂C(O)-,
- h) HC(O)OCH₂C(O)-,

- i) $R^2 C(O)OCH_2C(O)-$,
- j) $H_3CCHCH_2OCH_2C(O)-$.
- k) $benzylOCH_2C(O)-$.
- l)-m)



R^{13} is selected from the group consisting of:

- a) $R^{14}OC(R^{16})(R^{17})C(O)-$,
- b) $R^{15}OC(O)-$,
- c) $R^{18}C(O)-$,
- d) $H_3CC(O)(CH_2)_2C(O)-$,
- e) $R^{19}SO_2-$,
- f) $HOCH_2C(O)-$,
- g) $R^{20}(CH_2)_2-$,
- h) $R^{21}C(O)OCH_2C(O)-$,
- i) $(CH_3)_2NCH_2C(O)NH-$,
- j) $NCCH_2-$,
- k) F_2CHCH_2- ,
- l)-m)



R^{14} is H , CH_3 , benzyl, or $CH_3C(O)-$;

R^{15} is (C_1-C_3) alkyl, aryl, or benzyl;

R^{16} and R^{17} , independently, are H or CH_3 ;

R^{18} is selected from the group consisting of:

- a) $H-$,
- b) $(C_1-C_4)alkyl$,
- c) $aryl(CH_2)_m$,
- d) ClH_2C- ,
- e) Cl_2HC- ,
- f) FH_2C- ,
- g) F_2HC- , and
- h) $(C_3-C_6)cycloalkyl$;

R^{19} is selected from the group consisting of:

- a) CH_3 ,
- b) CH_2Cl ,
- c) $CH_2CH=CH_2$,
- d) $aryl$, and
- e) CH_2CN ;

R^{20} is OH , CH_3O- , or F ;

R^{21} is:

- a) CH_3- ,
- b) $HOCH_2-$,
- c) $aniline$, or
- d) $(CH_3)_2N-CH_2-$,

R^{22} is selected from the group consisting of:

- a) $HO-$
- b) CH_3O-
- c) H_2N-
- d) $CH_3OC(O)O-$,
- e) $CH_3C(O)OCH_2C(O)O-$,
- f) $aryl-CH_2OCH_2C(O)O-$,
- g) $HO(CH_2)_2O-$,
- h) $CH_3OCH_2O(CH_2)_2O-$, and
- i) CH_3OCH_2O- ;

m is 0 or 1;

n is 1-3;

p is 0-2; and

aryl is unsubstituted phenyl or phenyl unsubstituted with one of the following:

- a) F,
- b) Cl,
- c) OCH₃,
- d) OH,
- e) NH₂,
- f) (C₁-C₄)alkyl,
- g) OC(O)OCH₃, or
- h) NO₂;

and protected forms thereof.

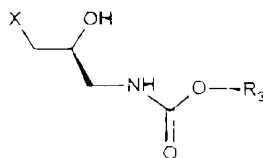
19. (Original) The (S)-intermediate of claim 18 wherein R¹ is selected from the group consisting of 3-fluoro-4-[4-(benzyloxycarbonyl)-1-piperazinyl]phenyl, 3-fluoro-4-(4-morpholinyl)phenyl, 4-(1,1-dioxohexahydro-1λ⁶-thiopyran-4-yl)-3-fluorophenyl, 3-fluoro-4-tetrahydro-2H-thiopyran-4-ylphenyl, 3,5-difluoro-4-(4-thiomorpholinyl)phenyl, 3-fluoro-4-(3-thietanyl)phenyl, and 4-(1,1-dioxido-3-thietanyl)-3-fluorophenyl.

20. (Original) An (S)-intermediate of claim 17 where R³ is is C₄-C₇ tertiary alkyl.

21. (Original) An (S)-intermediate of claim 20 where R³ is tertiary butyl.

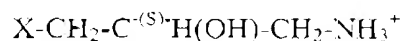
22. (Original) An (S)-intermediate of claim 17 having a name (S)-N-[[3-(3-Fluoro-4-morpholinyl)phenyl]-2-oxo-5-oxazolidinyl]methyl](tert-butoxy)carbamide.

23. (Original) A method of preparing a secondary alcohol having a general structural formula:



wherein X is a halogen, alkylsulfonyl, or arylsulfonyl, and R² is C₁-C₁₀ alkyl, or a salt or hydrate thereof,

comprising contacting an (S)-3-carbon amino alcohol having a general structural formula:

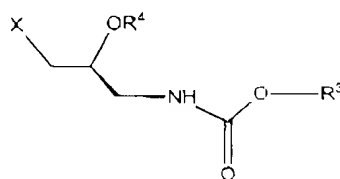


with a base and an carbonylating agent selected from the group consisting of a haloformate having a formula R³O-CO-X and a dialkyldicarbonate having a formula R³OCO₂R³.

24. (Original) The method of claim 23 further comprising isolating the secondary alcohol in a crystalline form.

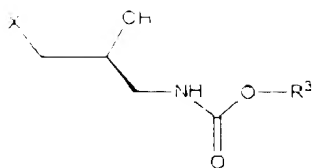
25. (Original) The method of claim 23 wherein the base is a tri(C₁-C₅ alkyl)amine.

26. (Original) A method of preparing a (S)-secondary ester having a general structural formula:



wherein X is a halogen, alkylsulfonyl, or arylsulfonyl, R³ is C₁-C₁₀ alkyl, and R⁴ is C₁-C₅ alkylcarbonyl, or a salt or hydrate thereof,

comprising contacting an (S)-secondary alcohol having a general structural formula:

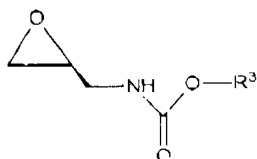


with a base and an acylating agent selected from the group consisting of an acid anhydride having a formula $O(R^4)_2$, and an activated acid having a formula R^4X .

27. (Original) The method of claim 26 further comprising isolating the secondary alcohol in a crystalline form.

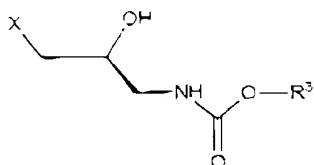
28. (Original) The method of claim 26 wherein the base is a tri(C_1 - C_5 alkyl)amine.

29. (Original) A method of preparing a (S)-epoxide having a general structural formula:



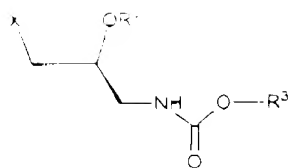
wherein R^3 is C_1 - C_{10} alkyl, or a salt or hydrate thereof, comprising contacting

a) an (S)-secondary alcohol having a general structural formula:



wherein X is a halogen, alkylsulfonyl, or arylsulfonyl; or

b) an (S)-ester having a general structural formula:

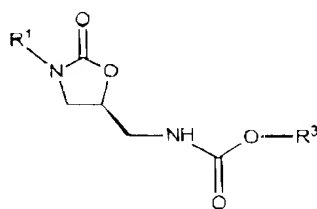


wherein R^4 is C_1 - C_5 alkylcarbonyl, with a lithium cation and a base whose conjugate acid has a pKa of greater than about 8.

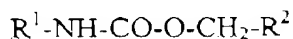
30. (Original) The method of claim 29 further comprising isolating the secondary alcohol in a crystalline form.

31. (Original) The method of claim 29 wherein the base is a tertiary-butoxide

32. (Currently amended) A The method of claim 58 of preparing an (S)-oxazolidinone having a general structural formula:

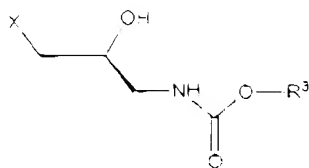


wherein R^3 is C_1 - C_{10} alkyl, and R^1 is optionally substituted aryl, or a salt or hydrate thereof, comprising contacting a carbamate having a general structural formula:



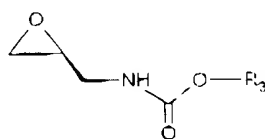
wherein R^2 is selected from the group consisting of C_1 - C_{20} alkyl, C_3 - C_7 cycloalkyl, phenyl optionally substituted with one or two C_1 - C_3 alkyl or halogen groups, allyl, 3-methylallyl, 3,3-dimethylallyl, vinyl, styrylmethyl, benzyl optionally substituted on the phenyl with one or two Cl, C_1 - C_4 alkyl, nitro, cyano, or trifluoromethyl groups, 9-fluorenylmethyl, trichloromethylmethyl, 2-trimethylsilylethyl, phenylethyl, 1-adamantyl, diphenylmethyl, 1,1-dimethylpropargyl, and isobornyl, or a salt or hydrate thereof, with

i) a secondary alcohol having a general structural formula:

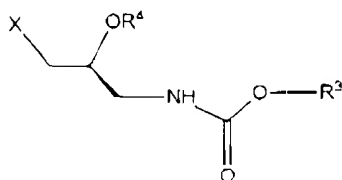


wherein X is halogen, alkylsulfonyloxy, or arylsulfonyloxy, or a salt or hydrate thereof,

ii) an (S)-epoxide having a general structural formula:



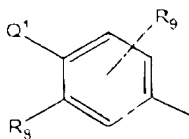
or iii) an (S)-ester having a general structural formula:



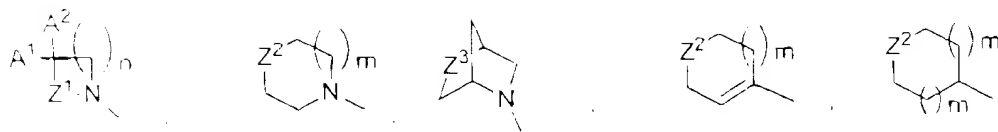
wherein R⁴ is C₁-C₅ alkylcarbonyl; in the presence of a lithium cation and a base whose conjugate acid has a pK_a of greater than about 8.

33. (Original) The method of claim 32 further comprising isolating the (S)-oxazolidonone in a crystalline form.

34. (Original) The method of claim 32 wherein R¹ is:



wherein Q¹ is: R¹⁰R¹¹N,



or Q^1 and R^8 taken together are dihydropyrrolidine, optionally substituted with R^{12} ;

Z^1 is $CH_2(CH_2)_p$, $CH(OH)(CH_2)_p$, or $C(O)$;

Z^2 is $(O)_pS$, O , or $N(R^{13})$;

Z^3 is $(O)_pS$ or O ;

A^1 is H or CH_3 ;

A^2 is selected from the group consisting of:

- a) H ,
- b) HO ,
- c) CH_3 ,
- d) CH_2O ,
- e) $R^{14}OCH_2=C(O)NH$,
- f) $R^{15}OC(O)NH$,
- g) (C_1-C_3) alkoxycarbonyl,
- h) $HOCH_2$,
- i) CH_3ONH ,
- j) $CH_3C(O)$,
- k) $CH_3C(O)CH_2$,
- l) $CH_3C(OCH_2CH_2O)$, and
- m) $CH_3C(OCH_2CH_2O)CH_2$,

or A^1-C-A^2 taken together are $CH_2-C(OCH_2CH_2O)$, $C(O)$, or $C(=NR^{22})$;

R^8 is H or F , or is taken together with Q^1 as above;

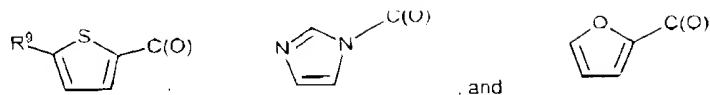
R^9 is H or F ;

R^{10} and R^{11} are taken together with the N atom to form a 3,7-diazabicyclo[3.3.0]octane, pyrrole, pyrazole, imidazole, 1,2,3-triazole, 1,2,4-triazole, morpholine or a piperazine group, optionally substituted with R^{13} ;

R^{12} is selected from the group consisting of:

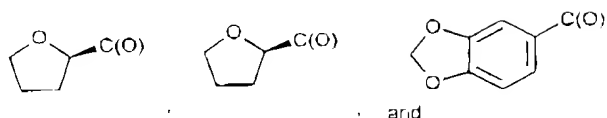
- a) $CH_3C(O)-$,

- b) $\text{HC(O)}-$,
- c) $\text{C}_6\text{H}_5\text{CHC(O)}-$,
- d) $\text{HOCH}_2\text{C(O)}-$,
- e) CH_3SO_2- ,
- f) $\text{F}_2\text{CHC(O)}-$,
- g) $\text{H}_3\text{CC(O)OCH}_2\text{C(O)}-$,
- h) $\text{HC(O)OCH}_2\text{C(O)}-$,
- i) $\text{R}^{21}\text{C(O)OCH}_2\text{C(O)}-$,
- j) $\text{H}_3\text{CCHCH}_2\text{OCH}_2\text{C(O)}-$,
- k) $\text{benzylOCH}_2\text{C(O)}-$,
- l)-m)



R^{12} is selected from the group consisting of:

- a) $\text{R}^{14}\text{OC(R}^{16})(\text{R}^{17})\text{C(O)}-$,
- b) $\text{R}^{15}\text{OC(O)}-$,
- c) $\text{R}^{18}\text{C(O)}-$,
- d) $\text{H}_3\text{CC(O)(CH}_2)_2\text{C(O)}$,
- e) $\text{R}^{19}\text{SO}_2-$,
- f) $\text{HOCH}_2\text{C(O)}-$,
- g) $\text{R}^{20}(\text{CH}_2)_2-$,
- h) $\text{R}^{21}\text{C(O)OCH}_2\text{C(O)}-$,
- i) $(\text{CH}_3)_2\text{NCH}_2\text{C(O)NH}-$,
- j) NCCH_2- ,
- k) F_2CHCH_2- ,
- l)-m)



R^{14} is H , CH_3 , benzyl, or $\text{CH}_3\text{C(O)}-$.

R^{17} is (C_1-C_4) alkyl, aryl, or benzyl;

R^{18} and R^{19} , independently, are H or CH_3 ;

R^{20} is selected from the group consisting of:

- a) H-,
- b) (C_1-C_4) alkyl,
- c) aryl $(CH_2)_m$,
- d) CH_2C- ,
- e) CH_2HC- ,
- f) FH_2C- ,
- g) F_2HC- , and
- h) (C_3-C_6) cycloalkyl;

R^{19} is selected from the group consisting of:

- a) CH_3 ,
- b) CH_2Cl ,
- c) $CH_2CH=CH_2$,
- d) aryl, and
- e) CH_2CN ;

R^{20} is OH, CH_3O- , or F;

R^{21} is:

- a) CH_3- ,
- b) $HOCH_2-$,
- c) aniline, or
- d) $(CH_3)_2N-CH_2-$,

R^{22} is selected from the group consisting of:

- a) HO-
- b) CH_3O-
- c) H_2N-
- d) $CH_3OC(O)O-$,
- e) $CH_3C(O)OCH_2C(O)O-$,
- f) aryl- $CH_2OCH_2C(O)O-$,
- g) $HO(CH_2)_2O-$,
- h) $CH_3OCH_2O(CH_2)_2O-$, and
- i) CH_3OCH_2O- ;

m is 0 or 1;

n is 1-3.

p is 0-2; and

aryl is unsubstituted phenyl or phenyl unsubstituted with one of the following:

- a) F,
- b) Cl,
- c) OCH₃,
- d) OH,
- e) NH₂,
- f) (C₁-C₄)alkyl,
- g) OC(O)OCH₃, or
- h) NO₂;

and protected forms thereof.

35. (Original) The method of claim 34 wherein R¹ is selected from the group consisting of 3-fluoro-4-[4-(benzyloxycarbonyl)-1-piperazinyl]phenyl, 3-fluoro-4-(4-morpholinyl)phenyl, 4-(1,1-dioxohexahydro-1λ⁶-thiopyran-4-yl)-3-fluorophenyl, 3-fluoro-4-tetrahydro-2H-thiopyran-4-ylphenyl, 3,5-difluoro-4-(4-thiomorpholinyl)phenyl, 3-fluoro-4-(3-thietanyl)phenyl, and 4-(1,1-dioxido-3-thietanyl)-3-fluorophenyl.

36. (Original) The method of claim 32 where R³ is C₄-C₇ tertiary alkyl.

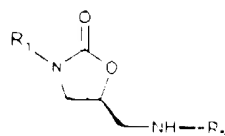
37. (Original) The method of claim 36 where R³ is tertiary butyl.

38. (Original) The method of claim 32 where R² is methyl.

39. (Original) The method of claim 32 where X is Cl.

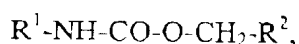
40. (Original) The method of claim 32 wherein the (S)-oxazolidinone is (S)-N-[[3-(3-fluoro-4-morpholinylphenyl)-2-oxo-5-oxazolidinyl]methyl]t-butoxycarbamide.

41. (Currently amended) A The method of claim 58 of preparing an (S)-oxazolidinone having a general structural formula:



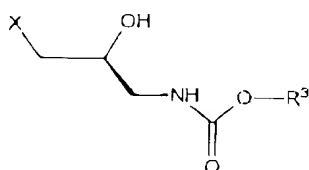
wherein R^5 is C_1 - C_6 alkylcarbonyl, C_1 - C_6 cycloalkylcarbonyl, C_1 - C_6 alkylthiocarbonyl, or C_1 - C_6 cycloalkylthiocarbonyl, and R^1 is optionally substituted aryl, or a salt or hydrate thereof, comprising:

- (a) contacting a carbamate having a general formula



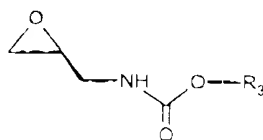
wherein R^2 is selected from the group consisting of C_1 - C_{20} alkyl, C_3 - C_7 cycloalkyl, aryl phenyl optionally substituted with one or two C_1 - C_3 alkyl or halogen groups, allyl, 3-methylallyl, 3,3-dimethylallyl, vinyl, styrylmethyl, benzyl optionally substituted on the phenyl with one or two Cl, C_1 - C_4 alkyl, nitro, cyano, or tri-fluoromethyl groups, 9-fluorenylmethyl, trichloromethylmethyl, 2-trimethyl-silylethyl, phenylethyl, 1-adamantyl, diphenylmethyl, 1,1-dimethylpropargyl, 2-furanylmethyl, and isobornyl, and hydrogen; with

- i) a secondary alcohol of a general structural formula:

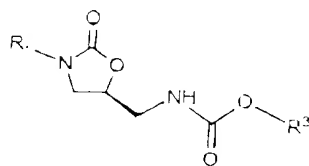


wherein X is a halogen, alkylsulfonyloxy, or arylsulfonyloxy, and R^3 is C_1 - C_{10} alkyl; or

- ii) an epoxide having a general structural formula:



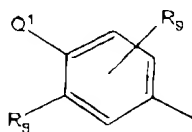
in the presence of a lithium cation and a base whose conjugate acid has a pKa of greater than about 8, to provide a ring-1-butylcarbamyl compound of a general structural formula:



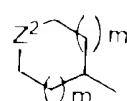
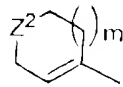
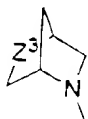
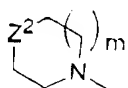
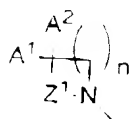
- (b) contacting the reaction product of step (a) with aqueous acid; and
- (c) contacting the reaction product of step (2) with a base and an acylating or thioacylating agent selected from the group consisting of (i) an acid anhydride of the structural formula $O(R^5)_2$, (ii) an activated acid of the structural formula R^5X , or (iii) a dithioester of the structural formula $R^5S(C=S)R^5$, wherein R^5 is C_1 - C_6 alkylcarbonyl, C_1 - C_6 cycloalkylcarbonyl, C_1 - C_6 alkylthiocarbonyl, or C_1 - C_6 cycloalkylthiocarbonyl, and X is halogen, alkylsulfonyloxy, or arylsulfonyloxy.

42. (Original) The method of claim 41 further comprising isolating the (S)-oxazolidonone in a crystalline form.

43. (Original) The method of claim 41 wherein R^1 is:



wherein Q^1 is: $R^{10}R^{11}N$,



or Q^1 and R^8 taken together are dihydropyrrolidine, optionally substituted with R^{12} ,

Z^1 is $\text{CH}_2(\text{CH}_2)_p$, $\text{CH}(\text{OH})(\text{CH}_2)_p$, or $\text{C}(\text{O})$;

Z^2 is $(\text{O})_p\text{S}$, O , or $\text{N}(\text{R}^{13})$;

Z^3 is $(\text{O})_p\text{S}$ or O ;

A^1 is H or CH_3 ;

A^2 is selected from the group consisting of:

- a) H ,
- b) HO ,
- c) CH_3 ,
- d) CH_3O ,
- e) $\text{R}^{14}\text{OCH}_2=\text{C}(\text{O})\text{NH}$,
- f) $\text{R}^{15}\text{OC}(\text{O})\text{NH}$,
- g) $(\text{C}_1\text{-C}_3)\text{alkoxycarbonyl}$,
- h) HOCH_2 ,
- i) CH_3ONH ,
- j) $\text{CH}_3\text{C}(\text{O})$,
- k) $\text{CH}_3\text{C}(\text{O})\text{CH}_2$,
- l) $\text{CH}_3\text{C}(\text{OCH}_2\text{CH}_2\text{O})$, and
- m) $\text{CH}_3\text{C}(\text{OCH}_2\text{CH}_2\text{O})\text{CH}_2$,

or $A^1\text{-C-A}^2$ taken together are $\text{CH}_3\text{-C}(\text{OCH}_2\text{CH}_2\text{O})$, $\text{C}(\text{O})$, or $\text{C}(=\text{NR}^{22})$;

R^8 is H or F , or is taken together with Q^1 as above;

R^9 is H or F ;

R^{10} and R^{11} are taken together with the N atom to form a 3,7-diazabicyclo[3.3.0]octane, pyrrole, pyrazole, imidazole, 1,2,3-triazole, 1,2,4-triazole, morpholine or a piperazine group, optionally substituted with R^{12} ;

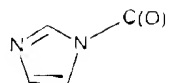
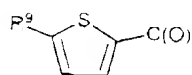
R^{12} is selected from the group consisting of

- a) $\text{CH}_3\text{C}(\text{O})\text{-}$,
- b) $\text{HC}(\text{O})\text{-}$,
- c) $\text{Cl}_2\text{CHC}(\text{O})\text{-}$,
- d) $\text{HOCH}_2\text{C}(\text{O})\text{-}$,
- e) $\text{CH}_3\text{SO}_2\text{-}$,
- f) $\text{F}_2\text{CHC}(\text{O})\text{-}$,
- g) $\text{H}_2\text{CC}(\text{O})\text{OCH}_2\text{C}(\text{O})\text{-}$,
- h) $\text{HC}(\text{O})\text{OCH}_2\text{C}(\text{O})\text{-}$,
- i) $\text{R}^{21}\text{C}(\text{O})\text{OCH}_2\text{C}(\text{O})\text{-}$,

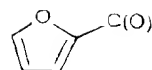
j) $\text{H}_3\text{CCHCH}_2\text{OCH}_2\text{C(O)}-$,

k) $\text{benzylOCH}_2\text{C(O)}-$,

l)-m)



, and



R^{13} is selected from the group consisting of:

a) $\text{R}^{14}\text{OC(R}^{16})(\text{R}^{17})\text{C(O)}-$,

b) $\text{R}^{15}\text{OC(O)}-$,

c) $\text{R}^{18}\text{C(O)}-$,

d) $\text{H}_3\text{CC(O)(CH}_2)_2\text{C(O)}$,

e) R^{19}SO_2 ,

f) $\text{HOCH}_2\text{C(O)}-$,

g) $\text{R}^{20}(\text{CH}_2)_2-$,

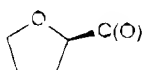
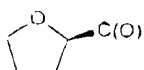
h) $\text{R}^{21}\text{C(O)OCH}_2\text{C(O)}-$,

i) $(\text{CH}_3)_2\text{NCH}_2\text{C(O)NH}-$,

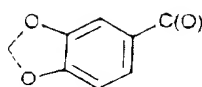
j) NCCH_2- ,

k) F_2CHCH_2 ,

l)-m)



, and



R^{14} is H, CH_3 , benzyl, or $\text{CH}_3\text{C(O)}-$;

R^{15} is $(\text{C}_1\text{-C}_3)\text{alkyl}$, aryl, or benzyl;

R^{16} and R^{17} , independently, are H or CH_3 ;

R^{18} is selected from the group consisting of:

a) H-

b) $(\text{C}_1\text{-C}_4)\text{alkyl}$,

c) $\text{aryl}(\text{CH}_2)_n$,

- d) $\text{ClH}_2\text{C}-$,
- e) $\text{Cl}_2\text{HC}-$,
- f) $\text{FH}_2\text{C}-$,
- g) $\text{F}_2\text{HC}-$, and
- h) $(\text{C}_3-\text{C}_6)\text{cycloalkyl}$;

R^{19} is selected from the group consisting of:

- a) CH_3 ,
- b) CH_2Cl ,
- c) $\text{CH}_2\text{CH}=\text{CH}_2$,
- d) aryl, and
- e) CH_2CN ;

R^{20} is OH , $\text{CH}_3\text{O}-$, or F ;

R^{21} is:

- a) CH_3- ,
- b) HOCH_2- ,
- c) aniline, or
- d) $(\text{CH}_3)_2\text{N}-\text{CH}_2-$,

R^{22} is selected from the group consisting of:

- a) $\text{HO}-$
- b) $\text{CH}_3\text{O}-$
- c) $\text{H}_2\text{N}-$
- d) $\text{CH}_3\text{OC}(\text{O})\text{O}-$,
- e) $\text{CH}_3\text{C}(\text{O})\text{OCH}_2\text{C}(\text{O})\text{O}-$,
- f) $\text{aryl}-\text{CH}_2\text{OCH}_2\text{C}(\text{O})\text{O}-$,
- g) $\text{HO}(\text{CH}_2)_2\text{O}-$,
- h) $\text{CH}_3\text{OCH}_2\text{O}(\text{CH}_2)_2\text{O}-$, and
- i) $\text{CH}_3\text{OCH}_2\text{O}-$;

m is 0 or 1;

n is 1-3;

p is 0-2; and

aryl is unsubstituted phenyl or phenyl unsubstituted with one of the following:

- a) F ,
- b) Cl ,
- c) OCH_3 ,

- d) OH,
- e) NH₂,
- f) (C₁-C₄)alkyl,
- g) OC(O)OCH₃, or
- h) NO₂;

and protected forms thereof.

44. (Original) The method of claim 43 wherein R¹ is selected from the group consisting of 3-fluoro-4-[4-(benzyloxycarbonyl)-1-piperazinyl]phenyl, 3-fluoro-4-(4-morpholinyl)phenyl, 4-(1,1-dioxohexahydro-1λ⁶-thiopyran-4-yl)-3-fluorophenyl, 3-fluoro-4-tetrahydro-2H-thiopyran-4-ylphenyl, 3,5-difluoro-4-(4-thiomorpholinyl)phenyl, 3-fluoro-4-(3-thietanyl)phenyl, and 4-(1,1-dioxido-3-thietanyl)-3-fluorophenyl.

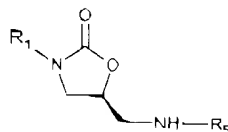
45. (Original) The method of claim 41 wherein R³ is C₄-C₇ tertiary alkyl.

46. (Original) The method of claim 45 wherein R³ is tertiary butyl.

47. (Original) The method of claim 41 wherein R² is methyl.

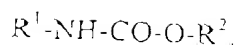
48. (Original) The method of claim 41 wherein X is Cl.

49. A method of preparing an (S)-oxazolidinone having a general structural formula:

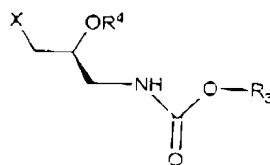


wherein R¹ is optionally substituted aryl, and R⁵ is C₁-C₆ alkylcarbonyl, C₁-C₆ cycloalkylcarbonyl, C₁-C₆ alkylthiocarbonyl, or C₁-C₆ cycloalkylthiocarbonyl; or a salt or hydrate thereof, comprising:

- (a) contacting a carbamate having general structural formula:

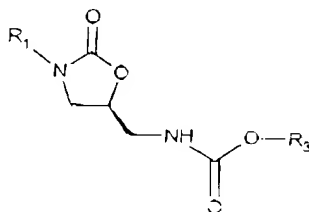


wherein R^2 is selected from the group consisting of C_1 - C_{20} alkyl, C_3 - C_7 cycloalkyl, aryl optionally substituted with one or two C_1 - C_3 alkyl or halogen groups, allyl, 3-methylallyl, 3,3-dimethylallyl, vinyl, styrylmethyl, benzyl optionally substituted on the phenyl with one or two Cl, C_1 - C_4 alkyl, nitro, cyano, or trifluoromethyl groups, 9-fluorenylmethyl, trichloromethylmethyl, 2-trimethylsilylethyl, phenylethyl, 1-adamantyl, diphenylmethyl, 1,1-dimethylpropargyl, 2-furanylmethyl, isobornyl, and hydrogen; with a (S)-protected alcohol/ester having a general structural formula:

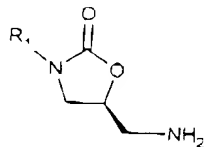


wherein X is a halogen, alkylsulfonyl, or arylsulfonyl; R^3 is C_1 - C_{10} alkyl; and R^4 is hydrogen or C_1 - C_5 alkylcarbonyl;

in the presence of a lithium cation and a base whose conjugate acid has a pK_a of greater than about 8, to provide an (S)-protected oxazolidinone having a general structural formula:



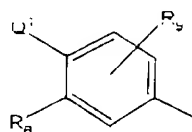
(b) contacting the reaction product of step (a) with an aqueous acid to produce an (S)-oxazolidinone free amine having a general structural formula:



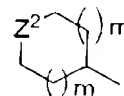
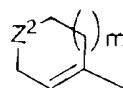
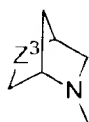
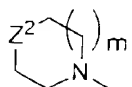
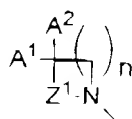
and (c) contacting the reaction product of step (b) with a base and an acylating or thioacylating agent selected from the group consisting of (i) an acid anhydride of the structural formula $O(R^5)_2$, (ii) an activated acid of the structural formula R^5X , or (iii) a dithioester of the structural formula $R^5S(C=S)R^5$, wherein R^5 is C_1 - C_6 alkylcarbonyl, C_1 - C_6 cycloalkylcarbonyl, C_1 - C_6 alkylthiocarbonyl, or C_1 - C_6 cycloalkylthiocarbonyl, and X is halogen, alkylsulfonyl, or arylsulfonyl.

50. (Original) The method of claim 49 further comprising isolating the (S)-oxazolidonone in a crystalline form.

51. (Original) The method of claim 49 wherein R^1 is:



wherein Q^1 is: $R^{10}R^{11}N$,



or Q^1 and R^8 taken together are dihydropyrrolidine, optionally substituted with R^{12} ;

Z^1 is $CH_2(CH_2)_p$, $CH(OH)(CH_2)_p$, or $C(O)$;

Z^2 is $(O)_pS$, O , or $N(R^{13})$;

Z^3 is $(O)_pS$ or O ;

A^1 is H or CH_3 ;

A^2 is selected from the group consisting of:

- H ,
- HO ,
- CH_3 ,
- CH_3O ,
- $R^{14}OCH_2=C(O)NH$,

f) $R^{15}OC(O)NH$,

g) (C_1-C_3) alkoxycarbonyl,

h) $HOCH_2$,

i) CH_3ONH ,

j) $CH_3C(O)$,

k) $CH_3C(O)CH_2$,

l) $CH_3C(OCH_2CH_2O)$, and

m) $CH_3C(OCH_2CH_2O)CH_2$,

or A^1-C-A^2 taken together are $CH_3-C(OCH_2CH_2O)$, $C(O)$, or $C(=NR^{22})$;

R^8 is H or F, or is taken together with Q^1 as above;

R^9 is H or F;

R^{10} and R^{11} are taken together with the N atom to form a 3,7-diazabicyclo[3.3.0]octane, pyrrole, pyrazole, imidazole, 1,2,3-triazole, 1,2,4-triazole, morpholine or a piperazine group, optionally substituted with R^{13} ;

R^{12} is selected from the group consisting of:

a) $CH_3C(O)-$,

b) $HC(O)-$,

c) $Cl_2CHC(O)-$,

d) $HOCH_2C(O)-$,

e) CH_3SO_2- ,

f) $F_2CHC(O)-$,

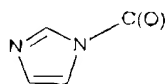
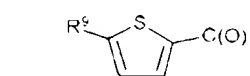
g) $H_3CC(O)OCH_2C(O)-$,

h) $HC(O)OCH_2C(O)-$,

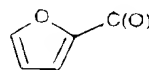
i) $R^{21}C(O)OCH_2C(O)-$,

j) $H_3CCHCH_2OCH_2C(O)-$,

k) $benzylOCH_2C(O)-$,



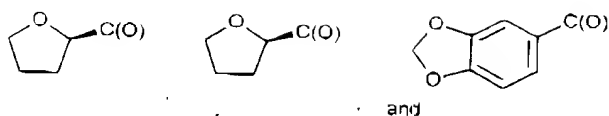
and



R^{13} is selected from the group consisting of:

a) $R^{14}OC(R^{16})(R^{17})C(O)-$,

- b) $R^{15}OC(O)-$,
- c) $R^{18}C(O)-$,
- d) $H_3CC(O)(CH_2)_2C(O)-$,
- e) $R^{19}SO_2-$,
- f) $HOCH_2C(O)-$,
- g) $R^{20}(CH_2)_2-$,
- h) $R^{21}C(O)OCH_2C(O)-$,
- i) $(CH_3)_2NCH_2C(O)NH-$,
- j) $NCCH_2-$,
- k) F_2CHCH_2- ,
- l)-m)



R^{14} is H, CH_3 , benzyl, or $CH_3C(O)-$;

R^{15} is (C_1-C_3) alkyl, aryl, or benzyl;

R^{16} and R^{17} , independently, are H or CH_3 ;

R^{18} is selected from the group consisting of:

- a) $H-$,
- b) (C_1-C_4) alkyl,
- c) $aryl(CH_2)_m$,
- d) ClH_2C- ,
- e) Cl_2HC- ,
- f) FH_2C- ,
- g) F_2HC- , and
- h) (C_3-C_6) cycloalkyl;

R^{19} is selected from the group consisting of:

- a) CH_3 ,
- b) CH_2Cl ,
- c) $CH_2CH=CH_2$,
- d) aryl, and
- e) CH_2CN ;

R^{20} is OH, CH_2O- , or F;

R^{21} is:

- a) CH_3- ,
- b) $HOCH_2-$,
- c) aniline, or
- d) $(CH_3)_2N-CH_2-$,

R^{22} is selected from the group consisting of:

- a) $HO-$
- b) CH_3O-
- c) H_2N-
- d) $CH_3OC(O)O-$,
- e) $CH_3C(O)OCH_2C(O)O-$,
- f) aryl- $CH_2OCH_2C(O)O-$,
- g) $HO(CH_2)_2O-$,
- h) $CH_3OCH_2O(CH_2)_2O-$, and
- i) CH_3OCH_2O- ;

m is 0 or 1;

n is 1-3;

p is 0-2; and

aryl is unsubstituted phenyl or phenyl substituted with one of the following:

- a) F,
- b) Cl,
- c) OCH_3 ,
- d) OH,
- e) NH_2 ,
- f) (C_1-C_4) alkyl,
- g) $OC(O)OCH_3$, or
- h) NO_2 ;

and protected forms thereof.

52. (Original) The method of claim 51 wherein R^1 is selected from the group consisting of 3-fluoro-4-[4-(benzyloxycarbonyl)-1-piperazinyl]phenyl, 3-fluoro-4-(4-morpholinyl)phenyl, 4-(1,1-dioxohexahydro-1 λ^6 -thiopyran-4-yl)-3-fluorophenyl, 3-fluoro-

4-tetrahydro-2H-thiopyran-4-ylphenyl, 3,5-difluoro-4-(4-thiomorpholinyl)phenyl, 3-fluoro-4-(3-thietanyl)phenyl, and 4-(1,1-dioxido-3-thietanyl)-3-fluorophenyl.

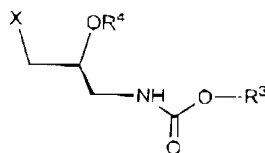
53. (Original) The method of claim 49 wherein R^3 is C_4 - C_7 tertiary alkyl.

54. (Original) The method of claim 53 wherein R^3 is tertiary butyl.

55. (Original) The method of claim 49 wherein R^2 is methyl.

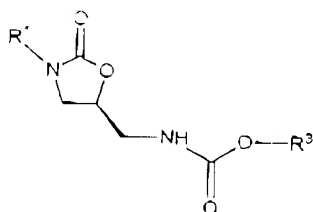
56. (Original) The method of claim 49 wherein X is Cl.

57. (Previously amended) A compound having a the S-configuration of general structural formula:

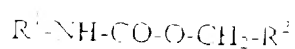


wherein R^3 is C_1 - C_{10} alkyl, R^4 is hydrogen or C_1 - C_5 alkylcarbonyl, X is halogen, alkylsulfonyloxy, arylsulfonyloxy, or taken together with OR^4 to form an epoxide.

58. (Previously amended) A method of preparing an (S)-oxazolidinone having a general structural formula:

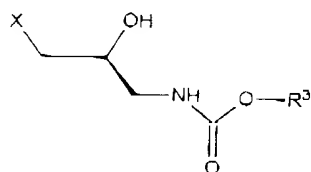


wherein R^3 is C_1 - C_{10} alkyl, and R^1 is optionally substituted aryl, or a salt or hydrate thereof, comprising contacting a carbamate having a general structural formula:

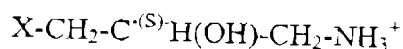


wherein R^2 is selected from the group consisting of C_1 - C_{20} alkyl, C_3 - C_7 cycloalkyl, phenyl optionally substituted with one or two C_1 - C_3 alkyl or halogen groups, allyl, 3-methylallyl, 3,3-dimethylallyl, vinyl, styrylmethyl, benzyl optionally substituted on the phenyl with one or two Cl, C_1 - C_2 alkyl, nitro, cyano, or trifluoromethyl groups, 9-fluorenylmethyl, trichloromethylmethyl, 2-trimethylsilylethyl, phenylethyl, 1-adamantyl, diphenylmethyl, 1,1-dimethylpropargyl, and isobornyl, or a salt or hydrate thereof, with

- i) a secondary alcohol having a general structural formula:

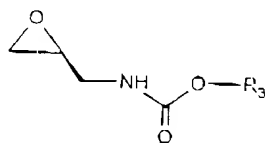


wherein X is halogen, alkylsulfonyloxy, or arylsulfonyloxy, or a salt or hydrate thereof made by the process comprising contacting an (S)-3-carbon amino alcohol having a general structural formula:

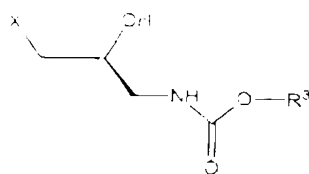


with a base and an carbonylating agent selected from the group consisting of a haloformate having a formula $R^3O-CO-X$ and a dialkyldicarbonate having a formula $R^3OCO_2R^3$;

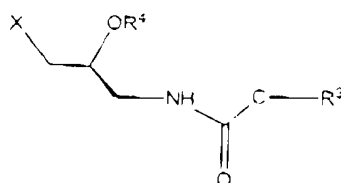
- ii) an (S)-epoxide having a general structural formula:



made by the process comprising contacting an (S)-secondary alcohol having a general structural formula:

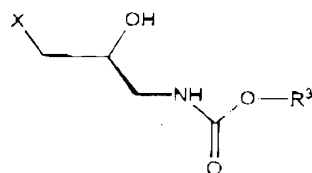


with a base and an acylating agent selected from the group consisting of an acid anhydride having a formula $O(R^4)_2$, and an activated acid having a formula R^4X ; or iii) an (S)-ester having a general structural formula:



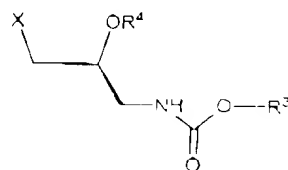
wherein R^4 is C_1 - C_5 alkylcarbonyl made by the process comprising contacting

a) an (S)-secondary alcohol having a general structural formula:



wherein X is a halogen, alkylsulfonyloxy, or arylsulfonyloxy; or

b) an (S)-ester having a general structural formula:



wherein R^4 is C_1 - C_5 alkylcarbonyl, with a lithium cation and a base whose conjugate acid has a pKa of greater than about 8;

in the presence of a lithium cation and a base whose conjugate acid has a pKa of greater than about 8.